Gender Differences in Employment Behavior During Late Middle Age

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Abstract:
Gender differences in the employment rates of 55- to 59-year-olds are concentrated among married persons. Wives are much less likely than their husbands to hold jobs and, more often, to cite family motivations as their most important reason for not working. The employment disparity is partially the result of the coordinated retirement decisions (combined with men typically marrying younger women), and is probably reinforced by the heavier caregiving commitments of females. Several findings are consistent with traditional role relationships, which emphasize specialization in market employment by males and home activities among females; however, the data are less compatible with a simple pattern where husbands "lead" and wives 'follow."

Article:
Relative to their younger counterparts, the percentage of mature adults holding jobs has fallen substantially since World War II. This trend has spurred a proliferation of studies on retirement behavior (see Hurd, 1990a; Quinn, Burkhauser, and Meyers, 1990; or Ruhm, 1989 for literature reviews). Most of the investigation has focused on men, with women typically either being ignored or receiving peripheral consideration. Furthermore, although married couples make joint labor supply decisions, the role of household factors has received limited attention until recently. The analysis below adds to our understanding of the nature and sources of gender differences in employment during late middle age.

Economists and sociologists have suggested a variety of reasons why the employment probabilities of older males and females may differ. In economic models, agents balance the benefits and costs of working against alternative uses of time in leisure or household activities. Sociological explanations emphasize role differentiation between men and women and across the life cycle. Some employment disparities represent the continuation of patterns developed earlier in life. For example, men may be more likely to work outside the home (engaging in market work) and women to be engaged in household activities, if females have lower earnings potential or societal norms dictate that they bear the bulk of child-raising duties.

This article focuses on sex differences in employment occurring for reasons unrelated to labor force involvement at younger ages. If the leisure time of husbands and wives is complementary, married persons will coordinate retirement decisions; this implies that younger spouses will depart the labor force relatively early. Older partners are also more likely to qualify for Social Security and pension benefits, with a consequent reduction in the labor supply of other family members. These effects need not be symmetric across the sexes. For example, if the incentives facing males dominate household employment decisions, women will be affected by the age and employment status of their husbands but the reverse will not hold.

Caregiving represents a potentially important but little explored source of gender gaps in the employment of mature adults. Providing care reduces the time available for market work, which operates to lower employment rates. Receivers of care may also require professional help and have additional medical or living expenses, however, which raises the income needs of the caregivers and encourages higher labor supply. A further complication is that care is likely to be supplied by family members with relatively few work commitments. Thus, a negative correlation between caregiving and job holding could be obtained even in the absence of a causal relationship.

The analysis below uses more current data than most previous studies and focuses on individuals in their middle to late 50s, the age range where many retirement decisions are currently being made. Representative samples of both men and women are included, and relatively good information is available on the care provided to family members. Finally, an effort has been made to restrict the investigation to persons with substantial work experience, in order to minimize gender differences resulting from heterogeneity in labor force attachments at younger ages.

Unmarried 55- to 59-year-old men and women are shown to hold jobs at similar rates, once the sample is limited to persons with some recent history of employment. By contrast, there are dramatic differences among married respondents, with husbands much more likely than wives to work. Nonworking women also have left their last job relatively frequently for reasons pertaining to their families (e, g, , the health or preferences of their spouse), whereas corresponding men are more likely to cite factors related to finances or their former employers.

These results suggest that the family is a key unit of analysis and justify a more detailed study of household considerations. The subsequent investigation therefore focuses on the age and employment status of the spouse and the amount of care supplied to relatives. Couples are observed to coordinate retirement decisions and wives are typically younger than their husbands, This implies that married females generally stop working at younger ages than corresponding males. Women also provide more care to relatives, possibly reinforcing the gender difference in retirement ages.

Previous Research

Some previous studies have examined whether the labor supply of *unmarried* older women is similar to or different from that of corresponding married and unmarried men (e.g., Hanoch and Honig, 1983; Honig, 1985). These analyses indicate that the determinants of employment are generally similar for unmarried females and their male counterparts.

A larger body of work investigates interrelationships between the retirement decisions of husbands and wives (Clark, Johnson, and McDermed, 1980; Clark and McDermed, 1989; Gustman and Steinmeier, 1994; Henretta and O'Rand, 1980, 1983; Henretta, O'Rand, and Chan, 1993; Hurd, 1990b; McCarthy, 1990; Pozzebon and Mitchell, 1989). These studies provide strong evidence that husbands and wives coordinate work and retirement decisions. The form of the coordination is less clear. Some researchers find symmetry between husbands and wives (e.g., Hurd, I990b). Others present evidence that husbands' decisions take precedence (Clark and McDermed, 1989; Henretta and O'Rand, 1983). The belief that the retirement decision of the husbands precedes that of the wives is also a maintained assumption in the modeling efforts of some investigators (e.g., Pozzebon and Mitchell, 1989). Gustman and Steinmeier (1994) estimate a structural econometric model and show that coordination occurs because husbands and wives share similar tastes for leisure, rather than because their jobs provide common retirement incentives. They further suggest that the retirement decisions of wives have a bigger impact on their husbands than vice versa, raising the possibility that "wives lead and husbands follow," rather than the opposite pattern.

Relatively little is known about the labor market effects of caregiving. One recent analysis (Kingson and O'Grady-LeShane, 1993) suggests that persons supplying care either at young ages or later in life retire sooner and receive lower Social Security benefits than their counterparts who do not.

Previous investigators have used several strategies to account for gender differences in household responsibilities and marital roles which occur early in life but affect employment in late middle age. For example, Henretta, O'Rand, and Chan (1993) explicitly control for previous work histories while Gustman and Steinmeier (1994) limit study to persons holding jobs after age 50. The latter strategy is utilized below in an attempt to restrict the sample to persons for whom the concept of retirement is meaningful. Sensitivity of the empirical results to alternative age exclusion thresholds is also examined.

Most prior studies have analyzed data from the Retirement History Survey (RHS) or the New Beneficiary Survey (NBS), both conducted by the Social Security Administration. The RHS is quite old (interviews were conducted on a biannual basis between 1969 and 1979) and contains limited information on married women. The NBS is more current (respondents were surveyed in 1980 and 1981) and includes married as well as unmarried women. Unfortunately, restriction of the NBS sample to new Social Security beneficiaries introduces serious selection biases. Most importantly, persons receiving Social Security Disability Insurance as well as those choosing not to initiate benefits during the period immediately preceding the survey are excluded (see Burt- less, 1990, for further discussion). Analysis of the RHS and NBS is also substantially limited to persons in their early 60s and above.

Data

Data for this study are from a Louis Harris and Associates Survey (hereafter referred to as HARRIS) conducted for the Commonwealth Fund between March and September of 1989. The respondents represent a national cross-section of the adult civilian noninstitutionalized population of 50- to 59-year-old women and of men aged 55 to 64 (see Louis Harris and Associates, 1989, for further information).

HARRIS has both advantages and disadvantages, when compared to the data sources used in previous research. Its biggest advantages include timeliness, coverage of a somewhat younger age group, inclusion of a representative sample of women, and better information on some variables, such as provision of care to relatives. Disadvantages are that it is cross-sectional, rather than longitudinal, the lack of detail on some important determinants of retirement behavior (e.g., wages, pensions, and Social Security benefits), and the limited information available on the respondent's spouse. The last restriction prevents simultaneous estimation of the work decisions of couples. Evidence presented below that unmarried men and women (with work experience after age 50) have identical survey date employment probabilities reduces concern that the observed gender differences result from the inability to control for disparities in some economic incentives.

The sample analyzed includes 729 men and 861 women who were between the ages of 55 and 59 at the survey date and who were employed at that time or had ever held a full-time job. To focus on persons with a history of substantial labor force experience, respondents permanently stopping work prior to age 50 were excluded from most of the investigation, decreasing the sample size to 1,373 (703 men and 670 women). Sample means, weighted so as to be nationally representative, are shown in Table 1. The first and third columns refer to all respondents; the second and fourth are restricted to those with work experience after age 50.

Survey Date Employment Status

Women between the ages of 55 and 59 hold jobs less often and, when employed, work fewer hours than their male counterparts. As shown in the first row of Table 2, men are 1.4 times as likely (79% vs 58%) to be employed at the interview date and 1.7 times as often (71% vs 43%) work full time (35+ hours per week). The sex differences are still more pronounced for married respondents (see row 2).

Much of the gender gap results from dissimilarities in labor force attachments beginning at younger ages. To control for this heterogeneity, the fourth through sixth rows of the table exclude respondents whose work experience ends prior to age 45, and the seventh through twelfth rows delete those never holding jobs after age 50. The overall employment gap declines from 21 to 13 percentage points (80% vs 67%) in the first case and to 9 points (81% vs 72%) in the second (see rows 4 and 7). Differences in full-time employment similarly fall from 28 points for the full sample to 23 (72% vs 49%) and 20 (73% vs 53%) percentage points for the former and latter groups.

The most striking finding of Table 2 is that single males and females have virtually identical employment-to-population ratios, once the sample is limited to persons with some work experience in middle age. Three-quarters of unmarried men holding jobs at some point after age 45 work at the survey date and 66 percent are employed full-time, as compared to 73 percent and 64 percent of corresponding women (row 6). Exactly the

same percentages of unmarried males and females with work experience after 50 are employed (76%) and work full-time (67%) at the time of the interview (row 9).

Table 1. Summary Statistics for Selected Variables*

Characteristic	Males		Females	
	Full Sample	Work Experience After Age 50	Full Sample	Work Experience After Age 50
Marital Status				
Married	83.3%	83.2%	66.9%	63.3%
Never married	3.5	3.5	4.7	5.3
Divorced/Separated	10.2	10.2	14.8	17.0
Widowed	3.1	3.2	13.6	14.5
Education				
High school drop-out	19.1	18.5	19.7	17.4
High school graduate	30.8	31.2	40.4	40.9
Some college	17.0	16.8	20.0	19.2
College graduate	33.1	33.4	20.0	22.4
Non-White or Hispanic	16.5	16.3	17.2	18.6
Owns home	86.3	86.6	85.6	85.9
Owns home without mortgage	46.4	45.9	49.9	49.0
Spouse working (if married)	58.1	58.5	61.9	62.3
Provides care to relative or friend	39.2	39.5	44.6	43.6
Activity limitations	30.0	28.9	44.6	40.1
Health problems	62.4	61.7	69.0	68.4
Occupation in Longest Job				
Professional/Technical	37.7	37.8	25.2	27.2
Other white collar	19.3	19.3	50.9	49.5
Blue collar	38.9	38.7	22.7	22.0
Agricultural	4.1	4.1	1.2	1.4
N	729	703	861	670

*Sample is restricted to 55- through 59-year-olds working at the survey date or who have ever held a paid full-time job. Data are weighted so as to be nationally representative. Respondents are classified as having activity limitations if they are unable to perform or can only perform with difficulty one or more of the following activities: "walk a mile," "do your own shopping," "read the phone book," "use a calculator," "drive to and from work," and "polish a car." They are defined to have health problems if they have ever had: "arthritis or rheumatism," "lung disease," "hypertension or high blood pressure," "a heart attack or other heart trouble," "diabetes," and "cancer or a malignant tumor of any kind."

Conversely, marriage is always associated with higher labor supply for men and lower employment for women (see rows 5 and 8). The potential importance of previous marital status is observed by noting that divorced and separated respondents have relatively high employment probabilities, whereas widowed males and never married females work relatively infrequently (rows 10 through 12). Small sample sizes preclude further analysis of these last differences and imply that they be interpreted with caution. Analysis in the remainder of this article focuses on respondents with employment experience after age 50. (Similar results are obtained when including persons working at some point beyond age 45.)

Probit equations of the form:

$$\Pr(Z_i = 1) = \Phi(X_i\beta_i) \qquad (1)$$

were next estimated. The subscript denotes individual i; Z is a dichotomous variable equal to I if the respondent holds the specified type of survey date employment; Φ is the standard normal distribution function; and X is a vector of covariates controlling for sex, race, age, education, marital status, health problems, and activity limitations. Marginal effects of the j*th* regressor are estimated as $\phi(\bar{X}\hat{\beta})\hat{\beta}_j$, for ϕ the standard normal density function, $\bar{X}$ the set of variable means, and $\hat{\beta}$ the vector of probit coefficients.

Controlling for observable characteristics fails to eliminate the gender difference in employment rates. Evaluated at the covariate means, females are 8.3 percentage points (.317 x –.261 –.083) less likely than men to work at the survey date (see the first row of Table 3), which is only slightly smaller than the unadjusted 9.4 percentage point difference detailed in Table 2.

Table 2. Probability of Working at Survey Date[a]

	Males			Females		
Subsample	% Working	% Working Full-Time	*n*	% Working	% Working Full-Time	*n*
No Work Experience Restriction						
All respondents	78.9%	70.6%	729	57.9%	42.5%	861
Married	79.9	71.7	605	53.0	33.9	590
Unmarried	73.8	64.9	124	67.9	59.8	271
Work Experience After Age 45						
All respondents	79.9	71.6	719	66.8	49.0	731
Married	80.9	72.6	598	63.3	40.5	483
Unmarried	75.3	66.2	121	73.2	64.4	248
Work Experience After Age 50						
All respondents	81.4	72.9	703	72.0	52.9	670
Married	82.4	74.0	582	69.7	44.6	432
Unmarried	76.2	67.0	121	76.1	67.0	238
Never married	70.5	63.1	25	70.6	62.2	34
Divorced/Separated	79.2	70.3	72	79.3	74.7	109
Widowed	61.9	50.4	24	75.4	61.8	95

[a]Data are weighted so as to be nationally representative.

Table 3 further indicates that employment probabilities decline with age and are lower for non-Whites than Whites. The race effect is stronger for males than females. Activity limitations substantially reduce labor supply for both sexes, while health problems either have no effect or a slight negative impact. The education pattern is different for men and women. Whereas male high school dropouts and college graduates work more than those with intermediate levels of schooling, female employment rates are highest among high school graduates (without college educations) and lowest among high school dropouts.

Table 3. Probit Estimates of Employment Determination[a]

Characteristic	Full Sample	Males	Females
Probit Coefficients			
Female	–0.261		
	(3.39)		
Age	–0.074	–0.079	–0.083
	(2.74)	(1.97)	(2.20)
Married	–0.129	0.172	–0.303
	(1.47)	(1.20)	(2.72)
High school drop-out	–0.121	–0.091	–0.145
	(1.00)	(0.51)	(0.85)
High school graduate (no college)	–0.093	–0.408	0.240
	(0.96)	(2.83)	(1.76)
Some college	–0.111	–0.234	0.048
	(0.96)	(1.34)	(0.31)
Non-White or Hispanic	–0.245	–0.434	–0.095
	(2.10)	(2.45)	(0.60)
Activity limitations	–0.509	–0.697	–0.343
	(6.24)	(5.71)	(3.06)
Health problems	–0.090	–0.136	–0.063
	(1.10)	(1.14)	(0.54)
Log likelihood	–739.350	–329.411	–394.972
$\Phi(\bar{X}\hat{\beta})$	0.317	0.267	0.355
Predicted Employment Probabilities			
Unmarried		0.769	0.765
Married		0.818	0.663

[a]Table shows estimates of the probit model $\text{Prob}(Z_i = 1) = \Phi(X_i\beta)$. Samples are restricted to respondents with work experience through at least age 50. Absolute values of *t*-statistics in parentheses. Predicted employment probabilities are calculated as $\Phi(.)$, with regressors other than marital status set equal to the mean values of the gender subsample. Sample sizes for the three models are 1371, 703, and 688, respectively.

By far the most important gender disparity occurs in the relationship between marital status and labor supply. Married men are more likely to be employed than their single counterparts, although the difference is not

statistically significant. Conversely, wedded women are predicted to work much less often than their unmarried peers, and the effect is significant at the .01 level. To show the effect of marriage more concretely, the bottom panel of the table displays predicted employment probabilities — calculated as Φ and (.) and evaluated at the mean values of the regressors, other than marital status, for the male and female samples. Unmarried men and women again have identical rates of predicted survey date employment (77%), whereas husbands are much more likely than wives to hold jobs (82% vs 66%).

A series of alternative probit equations were estimated to test the robustness of the impact of marriage to changes in model specifications. These included: (a) adding controls for home ownership and 11 categories of longest job occupations; (b) using full-time employment as the dependent variable; (c) deleting health problems and activity limitations from the equation; and (d) broadening the sample to persons with work experience after age 45. Marriage was associated with higher (lower) employment probabilities for men (women) in each of these estimates.

Table 4. Most Important Reason for Not Working at Survey Date[a]

	Full Sample		Married Respondents	
	Males	Females	Males	Females
Reason for Not Working[b]				
Health	32.8%	32.3%	32.9%	23.6%
Leisure	21.4	22.2	20.3	28.3
Financial/Employer	36.3	17.3	38.5	18.9
Family	3.4	14.8	2.2	16.4
Other	6.1	13.5	6.2	12.9
% Not Working	18.6%	28.0%	17.6%	30.3%
n	148	206	117	145

[a]Data are weighted so as to be nationally representative. Sample is restricted to nonworking respondents with employment experience through at least age 50.

[b]Reasons for not working include the following:
Health: "your health was poor."
Leisure: "you reached normal retirement age"; "you didn't enjoy your work"; "your friends had retired"; "you wanted to spend more time doing other things."
Financial/Employer: "you had qualified for pension or retirement benefits"; "you felt you had saved enough to retire"; "your employer wanted you to retire"; "your employer offered you an attractive retirement package"; "your employer moved away or closed its plant or office"; "the requirements of the job changed"; "you were one of several people laid off."
Family: "your wife's/husband's health was poor"; "your wife/husband wanted you to stop working"; "your wife/husband retired."

Table 5. Age and Employment Relationships of Married Households[a]

	All Married Respondents	Relative Age of Spouse		
		>1 Year Younger	Within 1 Year	>1 Year Older
Sample Proportion				
Males	100.0%	59.8%	29.2%	11.0%
Females	100.0	12.7	26.5	60.8
Employment Rates of Respondents				
Males	82.4%	84.3%	85.8%	66.6%
Males with employed spouses	84.9	85.6	88.2	68.7
Females	69.7	63.2	71.2	70.0
Females with employed spouses	76.2	66.8	73.8	80.2

[a]Data are weighted so as to be nationally representative. Sample is restricted to married respondents with employment experience through at least age 50.

Table 4 summarizes the most important reason stated by respondents for not working at the interview date. Similar proportions of nonemployed men and women ended employment for leisure or health reasons (54% of men and 55% of women), but there are large disparities in the percentage citing family or financial/employer factors. Nonworking males are over twice as likely as females to have departed the workforce for reasons related to finances or previous employment (36% vs 17%) but they did so less than one-fourth as often because of family motivations (3% vs 15%) and less than half as frequently for "other" reasons (6% vs 14%). The gender differences are even more pronounced among married respondents. For instance, wives cite family motivations for not working 7.5 times as frequently as husbands. These results suggest that economic considerations are of greater importance for men, while household factors are more crucial for women.

Married Households

Descriptive information on the relative age and employment status of married couples is presented in Table 5. The first two rows highlight the asymmetry of marriage patterns. Husbands are more than one year older than their wives in approximately 60 percent of couples, within one year approximately 25 percent of the time, and over a year younger in fewer than one-seventh of cases.

Rows 3 through 6 show how rates of job holding vary as a function of relative age and employment status of the spouse. Labor supply is higher when the mate also works. For instance, 85 percent of men with employed wives and 76 percent of women with working husbands hold jobs at the survey date, as compared to 82 percent and 70

percent of all married males and females. Labor supply is also relatively low for men with older wives and women with younger husbands (the least common marriage pattern).
To incorporate these factors into econometric models, the probit specification in equation (I) was reestimated, with the addition of dummy variables controlling for the spouse's employment status and relative age. The reference group consists of respondents with partners who do not work and are more than a year younger. A series of Cox proportional hazard models of the form:

$$H_i(t) = h_0(t) \exp(X_i\beta_i), \qquad (2)$$

were also estimated. The dependent variable in (2) refers to the age of last employment and is censored for respondents still working at the survey date. X is a vector of covariates and h, the baseline hazard.
The hazard rate for the i*th* individual at duration t, h,(t), is equal to the probability of exiting employment between t-1 and t, conditional on remaining employed through age t-1 or

$$H_i(t) = \Pr(T = t \mid T > t - 1). \qquad (3)$$

The Cox formulation is a partial-likelihood estimator which leaves the parametric form of the baseline hazard unspecified and uses information on the rank ordering of survival times (Kalbfleisch and Prentice, 1980). Positive coefficients imply increased hazard rates and *earlier* departures from the labor force.

The first two columns of Table 6 display probit coefficients; columns 3 and 4 show analogous proportional hazard estimates. As anticipated, characteristics which predict higher probabilities of survey date employment are associated with lower hazard rates and vice versa. The coefficients on age, education, race, activity limitations, and health problems are virtually identical to those presented in the previous section.

Respondents with employed spouses are more likely to work at the survey date and hold jobs until later ages than their counterparts whose partners are not employed. This pattern is more pronounced for females than males, and the data do not reject the null hypothesis that the employment status of their wives is irrelevant to the labor supply decisions of married men. Having a working spouse thus raises the expected probability of holding a job at the interview date (lowers the employment hazard rate) by 18 percentage points (43%) for women versus just 4 percentage points (20%) for men.

The employment patterns of men and women differ substantially as a function of the spouse's relative age. Mirroring the results in Table 5, males with older wives supply relatively little labor — they are predicted to hold jobs 11 percentage points less often and have 71 percent higher hazard rates out of employment than the reference group. By contrast, women with older husbands work more than their counterparts. Compared to females whose husbands are two or more years younger, they are 12 percentage points more likely to be employed at the time of the survey and have 30 percent lower hazard rates. These results contrast with those of some researchers (e.g., Clark and McDermed, 1989, or Hurd, 1990b), who find that the labor supply of women declines with the age of their husbands, but are consistent with recent evidence presented by Gustman and Steinmeier (1994).

The positive correlation of household labor supply could result from a selection process whereby individuals choose partners with similar attitudes toward work. The asymmetry between men and women, however, suggests that coordinated retirement plays at least some role, with the wife's employment decision following that of her husband. Nonetheless, a simple paradigm where males "lead" and females "follow" is less consistent with the finding that marriage to an older spouse lowers the labor supply of husbands but raises that of wives. Because data limitations preclude simultaneous estimation of the work decisions of husbands and wives, these results should be interpreted cautiously.

Table 6. Labor Supply Effects of Spouse's Employment and Relative Age*

Characteristic	Survey Date Employment		Age of Last Employment	
	Married Males	Married Females	Married Males	Married Females
Age	–0.058	–0.045	0.037	0.035
	(1.29)	(0.92)	(0.55)	(0.52)
High school drop-out	–0.113	–0.118	0.240	0.161
	(0.58)	(0.53)	(0.81)	(0.60)
High school graduate (no college)	–0.323	0.263	0.489	–0.298
	(1.99)	(1.61)	(1.89)	(1.37)
Some college	–0.258	0.184	0.444	–0.166
	(1.32)	(0.92)	(0.38)	(0.63)
Non-White or Hispanic	–0.352	0.154	0.383	–0.155
	(1.76)	(0.70)	(1.39)	(0.55)
Activity limitations	–0.737	–0.333	1.078	0.448
	(5.41)	(2.35)	(5.42)	(2.47)
Health problems	–0.073	0.009	0.210	–0.013
	(0.55)	(0.07)	(1.00)	(0.07)
Working spouse	0.167	0.494	–0.221	–0.568
	(1.31)	(3.54)	(1.16)	(3.12)
Same age spouse (± 1 year)	0.051	0.140	–0.076	–0.130
	(0.35)	(0.65)	(0.33)	(0.47)
Older spouse (>1 year older)	–0.439	0.319	0.534	–0.352
	(2.31)	(1.61)	(2.08)	(1.42)
Log likelihood	–257.578	–259.905	–687.268	–812.283
$\Phi(\hat{X\beta})$	0.258	0.359		

*Sample is restricted to married respondents with work experience through at least age 50. Probit models are estimated when considering survey date employment and Cox proportional hazard models for the age of last employment. Absolute values of *t*-statistics are in parentheses. Sample sizes are 580 and 426 for married men and women, respectively.

Table 7. Caregiving and Employment*

Amount of Caregiving	Unmarried		Married	
	Males	Females	Males	Females
Proportion of Respondents Providing Specified Hours of Care				
Some	33.4%	45.3%	40.8%	42.6%
1–5 hours/week	14.7	14.4	22.3	19.5
6–10 hours/week	8.8	12.6	7.9	9.5
>10 hours/week	9.3	15.4	6.7	10.7
Employment Probability				
None	79.0%	71.1%	82.3%	71.7%
Some	70.5	82.2	82.5	66.8
1–5 hours/week	64.7	78.6	86.7	70.9
6–10 hours/week	62.0	81.0	85.1	71.5
>10 hours/week	92.8	89.4	65.2	52.8
Probit Estimates of the Change in Employment Probability Due to Caregiving (Compared to Respondents Not Providing Care)				
1–5 hours/week	–0.180	0.048	0.077	–0.031
	(1.72)	(0.63)	(1.95)	(0.53)
6–10 hours/week	–0.130	0.097	0.101	0.041
	(0.98)	(1.06)	(1.54)	(0.49)
>10 hours/week	0.260	0.171	–0.111	–0.152
	(1.34)	(1.81)	(1.87)	(1.96)

*Sample is restricted to respondents with work experience through at least age 50. Percentages of subsamples with positive hours of caregiving do not add up to the total percentage providing care due to missing data for approximately 3% of respondents who stated that they supplied care without specifying the number of hours. (These respondents are classified as providing 1–5 hours/week of care in the probit estimates.) Probit equations include controls for age, education, race, health problems, activity limitations, and (for married respondents) the relative age and employment status of the spouse. Absolute value of *t*-statistics in parentheses.

Caregiving

Caregiving is focused upon next. The first panel of Table 7 shows that men and women supply light (1-5 hours per week) and moderate (6-10 hours per week) levels of care at approximately the same rate but that females are much more likely to undertake heavy (>10 hours per week) commitments. The latter result holds for both unmarried and married respondents, indicating that the greater provision of care by women is not exclusively the result of time allocation decisions within married couples.

The bottom panel of the table supplies information on the relationship between caregiving and employment. Rows 5 through 9 provide descriptive statistics. Rows 10 through 12 display predicted differences in job holding (compared to persons supplying no care), from probit models which include demographic and spouse characteristics, as well as three caregiving dummy variables.

Married respondents supplying more than 10 hours per week of care work less often than their counterparts, whereas the reverse is true for unmarried individuals. The predicted reduction (increase) in employment is 11 and 15 (26 and 17) percentage points for married (unmarried) men and women, respectively (see row 12). One explanation is that financial expenditures may accompany the provision of care and be paid for through increased employment. Whereas couples can have one partner (typically the husband) spend more time in market work while the other (usually the wife) provides the bulk of home care, single persons must devote more time to both activities and sacrifice leisure. Small and moderate amounts of care have ambiguous effects on employment. No relationship is observed for women and higher labor supply is found for married than single men (rows 10 and It).

Table 8 displays coefficients on a dummy variable indicating whether the respondent is female, for probit models of the determinants of caregiving. Age, education, race, and health are also controlled for, and separate estimates are obtained for subsamples stratified by employment and marital status. Binary probit models are estimated for dependent variables indicating whether any care is provided (column 1) or if caregiving exceeds 10 hours per week (column 2). Column 3 shows results of an ordered probit model, where the dependent

variable equals 0, I, 2, and 3, respectively, for respondents providing 0, 1-5, 6-10, and >10 hours of care per week.

Table 8. Gender Differences in the Probability of Caregiving[a]

Sample	Dependent Variable: Provides Care	Provides >10 Hours Care/Week	Amount of Care Provided	*n*
Married Respondents				
All married	0.014	0.263	0.088	1015
	(0.17)	(2.25)	(1.16)	
Employed	–0.052	0.261	0.030	754
	(0.53)	(1.72)	(0.33)	
Not employed	0.167	0.195	0.170	261
	(1.04)	(0.96)	(1.15)	
Unmarried Respondents				
All unmarried	0.219	0.251	0.239	356
	(1.49)	(1.29)	(1.74)	
Employed	0.317	0.171	0.276	264
	(1.82)	(0.78)	(1.69)	
Not employed	–0.174	0.364	–0.041	92
	(0.57)	(0.66)	(0.15)	
	(1)	(2)	(3)	

[a]The table shows probit coefficients on a dummy variable indicating whether the respondent is female. Columns (1) and (2) are binary probit models, column (3) is an ordered probit model. All equations include controls for age, education, race, health problems, and activity limitations. Absolute values of *t*-statistics in parentheses. The dependent variable in column (3) equals 0 if no care is provided and 1, 2, or 3 respectively if 1–5, 6–10, or >10 hours of care are supplied weekly. The variable is coded as 1 for respondents stating that they provided care without specifying the number of hours.

The table reveals strong evidence of role differentiation, whereby women are more likely to be caregivers than men. In particular, wives are significantly more probable than husbands to supply over 10 hours per week of care, with no difference observed in light or moderate caregiving. This result persists when the sample is limited to employed individuals (row 2), which implies that the disparity is not the result of lower rates of female job holding. Unmarried women also appear to supply more care than their male peers, although small sample sizes reduce the precision of these estimates.

Conclusion and Implications

Analysis of the HARRIS data reveals important gender differences in the employment of 55- to 59-year-olds. Unmarried men and women with work experience after age 50 have identical probabilities of working or holding full-time jobs at the survey date. Conversely, marriage is associated with elevated labor supply for males and reduced employment for females. Women are also much more likely than men to cite family motivations as the most important reason for not working. Consistent with previous research, the investigation reveals a positive correlation between the labor supply of husbands and wives, with a particularly strong spouse employment effect for women. Since women typically marry older men, this coordination of retirement decisions implies that wives are likely to exit the labor force at younger ages than their husbands. Surprisingly, females with older partners have relatively high rates of employment, whereas the reverse is true for males.

Women also supply more care to relatives. Substantial caregiving (>10 hours per week) is associated with reduced job holding among married persons but with increased employment for single respondents. This suggests that couples have one partner (typically the husband) concentrate on work outside the home while the other (usually the wife) provides the majority of the home care. By contrast, single persons must devote more time to both activities. Greater caregiving responsibilities may thus provide an additional reason for the relatively early retirement of married females.

Several of the findings (e.g., the strong positive effect of the husband's employment on the wife's probability of working and the greater propensity of women to provide care to relatives) are consistent with traditional role relationships, whereby men specialize in market employment and women in home activities. Conversely,

evidence that females with older spouses are more likely to work than those with younger mates, while the opposite is true for males, is less consistent with this view.

The results of this and related research suggest that changes in patterns of household composition and of the employment of women in their prime working years may have implications for future retirement ages. For instance, reductions in the stability of marriages may increase the probability that women work in late middle-age while decreasing employment among corresponding men. Conversely, if patterns of caregiving do not change, growth of the oldest (and most frail) segment of the population could depress the labor supply of married females in their middle to late 50s. Finally, since couples coordinate retirement decisions, the increased labor force involvement of prime-age women is likely to reduce future retirement ages among married persons of both sexes, to the extent that two-earner households accumulate greater wealth than those with only one employed spouse.

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